

What is Claimed is:

1. A liquid spray gun comprising
  - a body assembly including a nozzle portion with an outlet end, said nozzle portion having a liquid passageway extending from an inlet end to an outlet end opening through the outlet end of the nozzle portion,
    - 5 said body assembly having a first air passageway extending from an inlet end to an outlet end at the outlet end of said nozzle portion, said outlet end of said first air passageway extending around said outlet end of said liquid outlet
    - 10 passageway and being shaped to direct air under greater than atmospheric pressure against liquid flowing out of the outlet end of the liquid outlet passageway to propel the liquid away from the outlet end of the nozzle portion while shaping the liquid into a generally conical stream about an axis,
    - 15 said body assembly including a air cap portion having two spaced horns and means mounting said air cap portion on said nozzle portion with said horns projecting past the outlet end of the nozzle portion on opposite sides of said axis,
    - 20 said body assembly having a second air passageway extending from an inlet end to outlet passageways having outlet apertures spaced along said horns from the outlet end of the nozzle and facing opposite sides of said axis, said outlet passageways directing air under greater than atmospheric pressure flowing through said second air passageway against opposite sides of a stream of liquid formed by air flowing through the first air passageway to reshape stream of liquid into a wide elongate stream;
    - 25 said means mounting said air cap portion on said nozzle portion allowing rotation of said air cap portion about said axis relative to said nozzle portion, said air cap and nozzle portions include stops limiting relative rotation of said air cap portion relative to said nozzle portion to rotation through a predetermined angle between first and second relative positions, and said means mounting said air cap portion on said nozzle portion including surfaces in frictional engagement to
    - 30 restrict relative rotation of said air cap and nozzle portions until a predetermined torque is manually applied between said air cap and nozzle portions.

2. A spray gun according to claim 1 wherein said outlet passageways and apertures in said horns are non-circular.

3. A spray gun according to claim 1 wherein said outlet passageways and 5 apertures in said horns have a greater width in a direction at a right angle to said axis than depth in a direction parallel to said axis.

4. A spray gun according to claim 3 wherein said outlet passageways and apertures in said horns are generally rectangular.

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5. A spray gun according to claim 1 wherein said outlet passageways and apertures comprise first and second pairs of opposed outlet passageways and apertures in said horns, said first pair of outlet passageways and apertures each having a width in a direction at a right angle to said axis of about 0.154 inch or 15 0.39 cm, a depth in a direction parallel to said axis of about 0.35 inch or 0.89 cm, and being spaced about 0.25 inch or 0.64 cm from the outlet end of the nozzle portion, and said second pair of outlet passageways and apertures each having a width in a direction at a right angle to said axis of about 0.165 inch or 0.42 cm, a depth in a direction parallel to said axis of about 0.05 inch or 0.13 cm, and being 20 spaced about 0.35 inch or 0.89 cm from the outlet end of the nozzle portion.

6. A spray gun according to claim 1 wherein said outlet end of said first air passageway is shaped to direct a peripheral portion of air exiting said first air passageway in a converging conical pattern against liquid exiting the outlet end of 25 said liquid passageway .

7. A liquid spray gun according to claim 1 wherein said air cap portion and said nozzle portion are molded of polymeric material.

30 8. A liquid spray gun according to claim 7 further including a reusable platform portion having through air distribution passageways including an inlet opening adapted to be connected to a supply of air under greater than atmospheric

pressure, first and second air outlet openings, means for separately regulating the flow of air through said first and second air outlet openings of said air distribution passageways when air is flowing through said air distribution passageways, and manually operated means for stopping or allowing flow of air through said outlet 5 openings of said air distribution passageways,

10        said reusable platform portion and said nozzle portion having manually operable means for releasably mounting said nozzle portion on said reusable platform portion with said first and second air outlet openings of said air distribution passageways communicating with the inlet ends of said first and second passageways.

9. A liquid spray gun according to claim 8 wherein said manually operable means for releasably mounting said nozzle portion on said reusable platform portion comprises said reusable platform portion including a support wall having opposite 15 inner and outer surfaces, an opening through said support wall between said inner and outer surfaces, and said nozzle portion including a projection from a contact surface on the side of said nozzle portion opposite said outlet end, said projection being received in said opening through said support wall with said contact surface against said outer surface and a distal part of said projection projecting past the 20 outer surface of said support wall, said distal part of said projection having a transverse groove, and said manually operable means further including a latching member releasably engaged in said transverse groove adapted for manual removal from said distal part.